100131

Work Order ID 100131 April-18-13 10:27:14 AM

Quality Control

Memo

Item ID: Revision ID: Item Name:	646.3811 Radius Block			Accept	*N90004	010	n *	Setup Sta	ı	S1*
Start Date: Required Date: Reference:	4/18/13 5/02/13	Start Qty: 20.00 Req'd Qty: 20.00	*20* *20*		Cust Item ID: Customer:				14	. 1/
Approvals:		n: MC5	Date: <u>/3 ~ 4</u> – /&		Date:Date:		1	Run Sta Sto	" \	R1* R2*
Sequence ID/ Work Center II Draw Nbr		Operation Description ision Nbr		Set Up/ Run Hours	Tool ID Tool	# Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp
646.3800 110 *110* HAAS 1 HAAS CNC vertical	N/C machine #1	HAAS CNC VERTICAL Memo I-Machine pe DWG REV:	er DWG	0.00	MSP 13/09/0		2/			
120 * 12 0*		QC2- Inspect parts off ma	chine FAI/FAIB	0.00	MUP 13/09/0	4	e			

0.00

										DQA:	Date:	
NCR: Y	es / No				WORK ORDER NON-C	CONF	ORN	MANCE / UPDA		QA Closed:	Date:	•
W 10.1			 (**)		DISPOSITION				AGAINST DE	The state of the s	PROCESS	A TONG A COMMITTEE OF THE A STATE OF
Work Orde Part N					Rework Scrap Use-as-is	Scrap Machining Small Fab				Water Jet d. Eng. Coor. e/Packaging	Engineering Quality Other	
NCR N	0	· · · · · · · · · · · · · · · · · · ·		Work Order Update] `		" 	Composite	, , , , , , , , , , , , , , , , , , ,	Supplier		
Root Cause	Date	Step	Qty		ption of work order update or Non-conformance	Init Chief	- 1	Actior Descript		Sign & Date	Verification	QC Inspector
Ooc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved												
						AULT (CATEC	JORY		······································		
Landir	Bending Centre No Cracks Crushed/ Cuffs Heat Trea Inspectio Ripples in	Crimped at n Strip in n Bend	Tube		General Bend BOM/Route Broken/Damaged Burrs Contamination Countersink Cut Too Short Drill Holes	Ha Ins Ins M M M	structi lainte lislabe lisread ffset	on Incomplete . lons Incomplete/Unc nance led	clear	Ovalized Over/Under Part Incorre Part Lost/M Part Moved Positioned N	ct ssing Vrong	Pressure/Forced Temperature/Cure Weld Wrong Stock Pulled Other
1	Torque W	/aves in E	extrusion	ו ו	Drawing	1 10	ut of C	Calibration				

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Finish

Folio

Work Order ID 100131

April-18-13 10:27:14 AM

Required Date: 5/02/13

100131

Item ID: **Revision ID:**

646.3811

Radius Block

Accept

N900040100

Setup Start

Item Name: **Start Date:**

4/18/13

Start Qty: 20.00 Req'd Oty: 20.00

Cust Item 1D:

Customer:

Reference:

					D	C44	
Approvals:	Process Plan:	Date:	Tooling:	Date:	·Rı	un Start	*NP1*
	00:		9	Date.		Stop	14171
	QC:	Date:	SPC (Y/N):	Date:		Stop	*NID9*
Seguence ID/							
Sequence ID/	Operation		Set Up/	Tool ID Tool # Pl	lan Accept	Reject I	Reject Insp.
Work Center ID	Description		Run Hours		lada Ota		nisp.

Work Center ID	Operation Description QC8- Inspect parts - second check	Set Up/ Run Hours 0.00	Tool ID To	ool # Plan Code	Accept Qty	Reject Qty	Reject Number	Insp. Stamp	
130 QC Quality Control	Memo	0.00 PAS 40 -8°	13/09/04		21	_&			

140

Outsource process-Anodize per QSI017 4.1.10.1

0.00

140

Outsource4

Memo

0.00

Outsource process - Anodize

Issue P/O: 2220 Black Anodize as per Dwg 646.9700

150

Receive & Inspect for Damage & Mat'l Certs

0.00

150

Packaging Packaging

Memo

0.00

CX 13/09/06 21

NCR: Ye	NCR: Yes / No WORK ORDER NON-CONFORMANCE / UPDATE										
									QA Closed:	Date:	
Work Orde	r:				DISPOSITION	,		AGAINST DE	PARTMENT,		,
Part No	0			·	Rework Scrap		Skid-tube Machining ermoforming	Crosstube Small Fab Finishing	-i	Water Jet d. Eng. Coor re/Packaging	Engineering Quality Other
NCR N	0				Use-as-is Work Order Update] '"	Large Fab	Composite	, Rec/sto	Supplier	J Other
Root				Descri	ption of work order update	Initia	1	Action	Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Chief E	ng De	escription	Date	Verification	QC Inspector
Doc/Data						ļ					
quip/Tooling											
Operator											
Material		ļ							· ·		
Setup							,				
Other		1									
Process					(5 1	
Supplier		<u> </u>				"					
Training										ļ	
Unapproved		Ì	<u> </u>						<u> </u>		
						AULT CA	TEGORY				
Landin	g Gear 🕝				General				7		7
	Bending				Bend	Gra	in		Ovalized		Pressure/Forced
	Centre No	ot Concer	ntric to C	o/s	BOM/Route	Hard	lware		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged	⊢	ection Incomplete		Part Incorre		Weld
	Crushed/	Crimped.			Burrs	Insti	ructions Incomple	te/Unclear	Part Lost/M	_	Wrong Stock Pulled
	Cuffs				Contamination	Mai	ntenance		Part Moved		
	Heat Trea	it			Countersink	Misl	abeled		Positioned \	Nrong	
	Inspection	n Strip in	Tube		Cut Too Short	Misi	ead		Power Loss,	/Surge	Other
Γ	Ripples in	Bend			Drill Holes	Offs	et				
Ī	Torque W	aves in E	xtrusion	١ [Drawing	Out	of Calibration				
	Turning S	equence			Finish	Out	of Sequence				
Ī	Wave/Tw	ist in Tul	oe		Folio	Out	side Dimensions				

DQA:

Date:

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

100131

Work Order ID	100131	2 mg 23	N. ph. o
April-18-13 10:27:14 A	M		

Item ID: 646.3811 Accept *N900040100* Setup Start * **Revision ID:** Item Name: Radius Block **Start Date:** 4/18/13 **Start Qty: 20.00** Cust Item ID: Required Date: 5/02/13 Req'd Qty: 20.00 **Customer:** Reference: Run Process Plan: _____ Date: ____ Tooling: Approvals: Date: QC: _____ Date: ___ SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Accept Reject Insp. **Work Center ID** Description **Run Hours** Qty Code Qty Number Stamp 155 QC5- Inspect part completeness to step on W/O 0.00 *155* 0.00 Memo Quality Control 160 Spray Painting per QSI005 4.2 0.00 *160* CX 13/09/06 SprayPaint 0.00 Memo Spray Painting PRIME AS PER DWG, SEE NOTE #2 A.T.G CARDINAL 4860-50 PRIMER BATCH: 170 QC14- Inspect Spray Paint 0.00 *170* DAS 27 0.00 Memo 9-89 Quality Control

13916

					•					DQA:	Date	:
NCR: Y	es / No				WORK ORDER NON-C	CON	NFORM	MANCE / UPD	ATE	QA Closed:	 Date	
					DISPOSITION			27.0	AGAINST DE			
Work Orde	er:								1	Water Jet	Engineering	
Part N	0.				Scrap Machining Small			Crosstube Small Fab Finishing	4	d. Eng. Coor.	Quality Other	
NCR N	lo				Work Order Update	├ ── ┤ │			~ 		Supplier	
Root				Descri	ption of work order update	li li	nitial	Acti	on	Sign &		
Cause	Date	Step	Qty	(or Non-conformance	Chi	ief Eng	Descri	ption	Date	Verification	QC Inspector
Doc/Data	·									:		
Equip/Tooling												
Operator												
Material												
Setup												
Other											'	
Process												
Supplier												
Training		ļ										
Unapproved												
					F	AUL'	T CATE	GORY				
Landin	ng Gear		,		General					~	_	_ ,
	Bending				Bend		Grain			Ovalized	L	Pressure/Forced
	Centre No	ot Conce	ntric to (o/s	BOM/Route		Hardwa	re		Over/Under	tolerance	Temperature/Cure
	Cracks				Broken/Damaged		Inspecti	on Incomplete		Part Incorre	ct	Weld
	Crushed/	Crimped.			Burrs		Instruct	ions Incomplete/U	nclear	Part Lost/M	issing	Wrong Stock Pulled
Cuffs Contamination					Contamination		Mainte	nance		Part Moved		
	Heat Trea	at			Countersink		Mislabe	led		Positioned V	Vrong	
	Inspectio	n Strip in	Tube		Cut Too Short		Misreac	i		Power Loss/	Surge	Other
	Ripples in	Bend			Drill Holes		Offset					

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing

Finish

Folio

Page 4 *100131* April-18-13 10:27:14 AM Item ID: 646.3811 Accept *N900040100* Setup Start **Revision ID:** Item Name: Radius Block Start Date: 4/18/13 **Start Oty: 20.00** Cust Item ID: Required Date: 5/02/13 Req'd Qty: 20.00 **Customer:** Reference: Run Process Plan: ____ Date: **Approvals:** Tooling: Date: Stop _____ Date:____ SPC (Y/N): Date: Sequence ID/ Operation Set Up/ Tool ID Tool # Plan Reject Reject Accept Work Center 1D Description **Run Hours** Qty Code Qty Number Stamp 180 Identify as per dwg & Stock Location: 57535 0.00 *120* Packaging 0.00 Memo Packaging ***IDENTIFY AS PER APICAL MPP-120 BY STAMPING P# AND REV***

190

QC21- Final Inspection - Work Order Release

0.00

190

QC

Quality Control

Memo

0.00

MCS 13-09-17
MCS 13-09-17

Insp.

13-09-16

									DQA:	Date:	
NCR: Y	es / No				WORK ORDER NON-C	CONFORI	MANCE / UPDAT		QA Closed:	Date:	
		· · · · · · · · · · · · · · · · · · ·			DISPOSITION			AGAINST DEI			Donate of the contract of the
Work Orde Part N	o				Rework Skid-tube Crosstube Scrap Machining Small Fab Use-as-is Thermoforming Finishing			Small Fab Finishing		Water Jet d. Eng. Coor. re/Packaging	Engineering Quality Other
NCR N	0		,		Work Order Update		Large Fab Co	omposite		Supplier	
Root	Data	Chan	0.5		ption of work order update or Non-conformance	Initial Chief Eng	Action Description	on	Sign & Date	Verification	QC Inspector
Cause	Date	Step	Qty		or Non-comormance	Ciller Eng	Description	011	Date	vermeation	Qc mspector
Doc/Data	-										
Equip/Tooling											
Operator											
Material	-	 ♣ A_q 					İ			~	
Setup	-	-		*,							
Other		**.									
Process											
Supplier Training	-										
Unapproved										•	
Onappioved		<u> </u>	<u> </u>		F	AULT CATE	GORY		L	<u> </u>	<u></u>
Landin	g Gear				General						
Γ	Bending				Bend	Grain			Ovalized	Г	Pressure/Forced
-	Centre No	ot Conce	ntric to (o/s	BOM/Route	Hardwa	are	—	Over/Under	tolerance	Temperature/Cure
-	Cracks			-	Broken/Damaged	├ ──┤	ion Incomplete		Part Incorre	├ ─	Weld
-	Crushed/	Crimped			Burrs	\vdash	tions Incomplete/Uncle	ear	Part Lost/M	 	Wrong Stock Pulled
-	Cuffs		:		Contamination		enance		Part Moved	· _	-
•	Heat Trea	at		-	Countersink	Mislab			Positioned V	Vrong	
	Inspectio		Tube		Cut Too Short	Misrea			Power Loss/		Other
 	Ripples in				Drill Holes	Offset		<u> </u>	ı ·	- L	

Out of Calibration

Out of Sequence

Outside Dimensions

Turning Sequence

Wave/Twist in Tube

Torque Waves in Extrusion

Drawing Finish

Folio

Picklist Print

April-18-13 10:27:17 AM

Work Order ID: 100131

646.3811

100131

Parent Item Name: Radius Block

646 3811

Start Date: 4/18/13

Required Date: 5/02/13

Start Qty: 20.00

Required Qty: 20.00

Comments:

Parent Item:

IPP REV:A NEW ISSUE 12-10-22 JLM VERIFIED:DD

Component Item ID/ Item Name	Replacement Item ID	Mfg/ Purch	Bin Item	Primary Location	Last Location	Route Seq ID	Unit of Measure	Qty on Hand	Qty per Kit	Total Qty	Qty Issued	Date Issued	Status
M7075T6B1.000X00.25		Purchased	No				f	0.0000		2.947368			

M7075T6B1 000X00 250

DQA: **WORK ORDER NON-CONFORMANCE / UPDATE** NCR: Yes / No QA Closed: Date: AGAINST DEPARTMENT/PROCESS DISPOSITION Work Order: Engineering Crosstube Water Jet Skid-tube Rework Quality Machining Small Fab Prod. Eng. Coor. Scrap Part No. Rec/Store/Packaging Other Use-as-is Thermoforming Finishing Composite Supplier Work Order Update Large Fab NCR No. Description of work order update Initial Action Sign & Root or Non-conformance Chief Eng Description Date Verification QC Inspector Step Qty Cause Date Doc/Data Equip/Tooling Operator Material Setup Other Process Supplier Training Unapproved **FAULT CATEGORY Landing Gear** General Pressure/Forced Grain Ovalized Bend Bending BOM/Route Temperature/Cure Hardware Over/Under tolerance Centre Not Concentric to O/S Weld

Inspection Incomplete

Maintenance

Out of Calibration

Outside Dimensions

Out of Sequence

Mislabeled

Misread

Offset

Instructions Incomplete/Unclear

Part Incorrect

Part Moved

Part Lost/Missing

Positioned Wrong

Power Loss/Surge

Wrong Stock Pulled

Other

Broken/Damaged

Contamination

Countersink

Cut Too Short

Drill Holes

Drawing

Finish

Folio

Burrs

H:/FORMS/Quality Assurance\approved QA/NCRWO Rev G

Turning Sequence

Wave/Twist in Tube

Ripples in Bend

Cracks

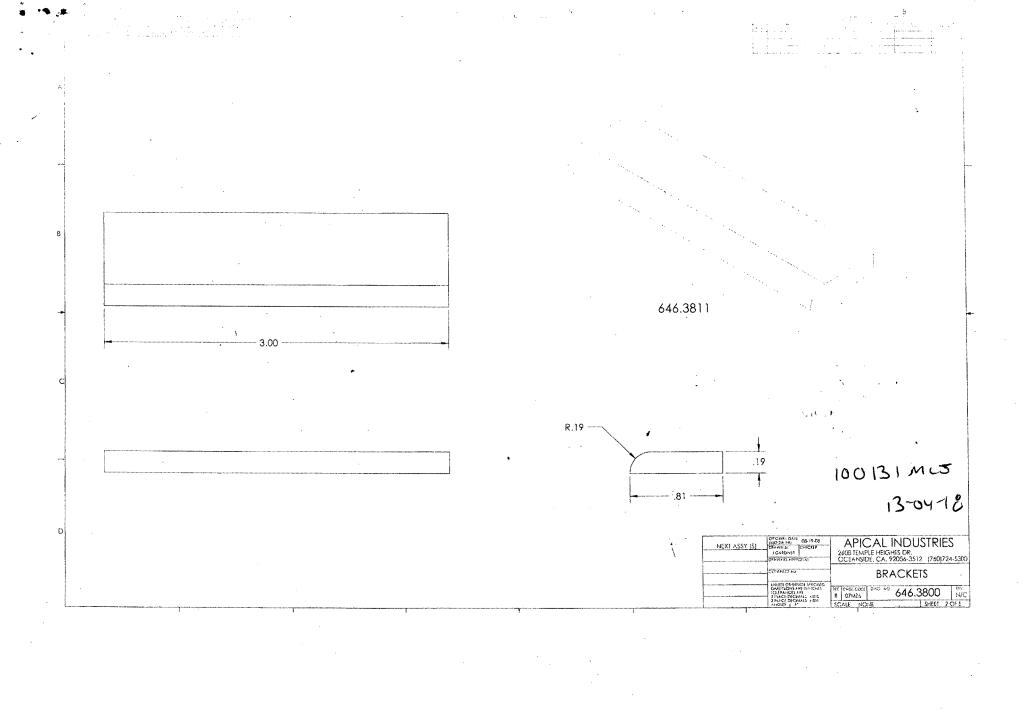
Cuffs

Heat Treat

Crushed/Crimped

Inspection Strip in Tube

Torque Waves in Extrusion



DART AEROSPACE LTD	Work Order:	100131
Description: Radius Block	Part Number:	646,3811
Inspection Dwg: 646 3800 Rev:		Page 1 of 1

FIRST ARTICLE INSPECTION CHECKLIST

Drawing Dimension	Tolerance	Actual Dimension	Accept	Reject	Method of Inspection	Comments
3,00	0,010	3,004			1111-04	Verm
3,00	0,010	0,812	V		///	, , ,
0.19	0,010	0,192			///	/ 1
R 0,19	0,010	0,187	/			Kadina gaze
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					,	

Measured by:	Audited by:	40	Preliminary Approval:	
Date: 13/09/04	Date:	13/09/04	Date:	

Rev	Date	Change	Revised by	Approved
E	10.04.14	Added preliminary approval	KJ	



A.T.G. Industries Inc. 731, rue Industrielle Rd. PLATING DEPARTMENT Rockland, On K4K 1T2 Canada

Ph: (613) 446-4544 Fax: (613) 446-4556

Pack List

Number: 62615

Date: 12-Sep-13

То

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7 Canada Ship To

DART AEROSPACE LTD 1270 ABERDEEN ST. HAWKESBURY, ON K6A 1K7

Canada

Ph: 613-632-5200

Fax: 613-632-1185

Ph: 613-632-5200

Fax: 613-632-1185

Terms		Ship Via				
		Sifip via				
Quantity	Do					
Quantity	Description				*************************************	
1	Part: ASST		Rev:			
lot	3 PCS 647.9313					
	21 PCS 646.3811					
_	28 PCS 647.9612					
	HARD ANODIZE BLACK MIL-A-8625 TYPE III CLASS 2		,			
	PRIME MIL-P-23377 J TYPE I CLAS	SS N				
	Job: 20130564	PO: 21220	Line:			
	Certificate of Conformance					
	A.T.G. Industries certifies that all items in with all requirements, specifications and ISO 9001 : 2008 REGATG SALES-2010 TERDATE : 12/13 CERTIFIED SIGNATURE : 12/13	drawings referenced	conformance in the purchase order.			
	RECEIVER SIGNATURE:	· · · · · · · · · · · · · · · · · · ·	-			
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